

Serial No.: 10/578783

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* * * * * Welcome to STN International * * * * *

NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	JUL 28	CA/CAPLUS patent coverage enhanced
NEWS	3	JUL 28	EPFULL enhanced with additional legal status information from the EPOLINE Register
NEWS	4	JUL 28	IFICDB, IFIPAT, and IFIUDB reloaded with enhancements
NEWS	5	JUL 28	STN Viewer performance improved
NEWS	6	AUG 01	INPADOCDB and INPAFAMDB coverage enhanced
NEWS	7	AUG 13	CA/CAPLUS enhanced with printed Chemical Abstracts page images from 1967-1998
NEWS	8	AUG 15	CAOLD to be discontinued on December 31, 2008
NEWS	9	AUG 15	CAPLUS currency for Korean patents enhanced
NEWS	10	AUG 27	CAS definition of basic patents expanded to ensure comprehensive access to substance and sequence information
NEWS	11	SEP 18	Support for STN Express, Versions 6.01 and earlier, to be discontinued
NEWS	12	SEP 25	CA/CAPLUS current-awareness alert options enhanced to accommodate supplemental CAS indexing of exemplified prophetic substances
NEWS	13	SEP 26	WPIDS, WPINDEX, and WPIX coverage of Chinese and Korean patents enhanced
NEWS	14	SEP 29	IFICLS enhanced with new super search field
NEWS	15	SEP 29	EMBASE and EMBAL enhanced with new search and display fields
NEWS	16	SEP 30	CAS patent coverage enhanced to include exemplified prophetic substances identified in new Japanese-language patents
NEWS	17	OCT 07	EPFULL enhanced with full implementation of EPC2000
NEWS	18	OCT 07	Multiple databases enhanced for more flexible patent number searching
NEWS	19	OCT 22	Current-awareness alert (SDI) setup and editing enhanced
NEWS	20	OCT 22	WPIDS, WPINDEX, and WPIX enhanced with Canadian PCT Applications
NEWS	21	OCT 24	CHEMLIST enhanced with intermediate list of pre-registered REACH substances
NEWS EXPRESS	JUNE 27 08	CURRENT WINDOWS VERSION IS V8.3, AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.	
NEWS HOURS	STN Operating Hours Plus Help Desk Availability		

Serial No.: 10/578783

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* * * * * STN Columbus * * * * *

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FILE 'CAPLUS' ENTERED AT 11:15:22 ON 03 NOV 2008

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FILE COVERS 1907 - 3 Nov 2008 VOL 149 ISS 19

FILE LAST UPDATED: 2 Nov 2008 (20081102/ED)

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<http://www.cas.org/legal/infopolicy.html>

=> s (cyclohexanediactic (2w) acid (2w) anhydride) (1) (prepare or transformation or transform)

261 CYCLOHEXANEDIACETIC
4701271 ACID
1658916 ACIDS
5220641 ACID
(ACID OR ACIDS)
236254 ANHYDRIDE
35093 ANHYDRIDES

247649 ANHYDRIDE
 (ANHYDRIDE OR ANHYDRIDES)
 11963 PREPARE
 2406 PREPARES
 14312 PREPARE
 (PREPARE OR PREPARES)
 142396 PREP
 2441 PREPS
 144612 PREP
 (PREP OR PREPS)
 157295 PREPARE
 (PREPARE OR PREP)
 378121 TRANSFORMATION
 85086 TRANSFORMATIONS
 432992 TRANSFORMATION
 (TRANSFORMATION OR TRANSFORMATIONS)
 107547 TRANSFORM
 21519 TRANSFORMS
 126704 TRANSFORM
 (TRANSFORM OR TRANSFORMS)

L1 1 (CYCLOHEXANEDIACETIC (2W) ACID (2W) ANHYDRIDE) (L) (PREPARE OR TRANSFORMATION OR TRANSFORM)

=> d l1 ibib abs

L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1963:66337 CAPLUS

DOCUMENT NUMBER: 58:66337

ORIGINAL REFERENCE NO.: 58:11294d-h,11295a-e

TITLE: Catalytic dehydrogenation. VIII. Synthesis and dehydrogenation of spiro[6.5]dodecanes

AUTHOR(S): Sen Gupta, S. C.; Sen, Parimal Krishna

CORPORATE SOURCE: Ramakrishna Mission Vidyamandir, Belur Math, India

SOURCE: Journal of the Indian Chemical Society (1962), 39, 815-22

CODEN: JICSAH; ISSN: 0019-4522

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

GI For diagram(s), see printed CA Issue.

AB cf. ibid. 660; CA 50, 3364h. The synthesis of Ia (R2 = R3 = H) (I, R = R1 = H) and its alkyl derivs. were described. Ia when heated with Pd-C at 370-400° in a sealed tube underwent dehydrogenation accompanied by ring transformation, providing an anthracene or a phenanthrene as the main product. By the method of Ali, et al. (CA 31, 62187), were prepared IIa [(R2R3 =)O] (II, R = R1 = H) and IIa (R2 = R3 = H) (III, R = R1 = H), b1 188°, m. 57-8° (hexane). III (R = R1 = H) (10 g.) and polyphosphoric acid (PPA) (from 60 g. P2O5 and 60 ml. 89% H3PO4) heated and stirred 1.5 hrs. on a steam bath, poured on crushed ice, and the product isolated with Et2O gave 6.5 g. Ia [(R2R3 =)O] (IV R = R1 = H), b1 166-8°, m. 58° (hexane); 2,4-dinitrophenylhydrazone m. 226° (EtOAc). IV (R = R1 = H) (9 g.) gently boiled 24 hrs. with 40 g. amalgamated Zn and 40 ml. concentrated HCl and the product isolated with Et2O gave 6 g. I (R = R1 = H) (IVa), b1 152-3°, d32 0.9986, n32D 1.5445. IVa (2.51 g.) heated 18 hrs. at 380-400° with 0.28 g. 10% Pd-C in a sealed tube, the product isolated with Et2O, and chromatographed on Al2O3 with hexane gave initially o-xylene, b. 140-5°, oxidized by alkaline KMnO4 to o-C6H4(CO2H)2 (IVb), m. 200°

(decomposition) (anhydride m. 130°). Later fractions gave anthracene (V) isolated via the trinitrobenzene (VI) complex. From 14 g. 1,1-cyclohexanediactic acid anhydride (VII), 70

ml. PhMe, and 27 g. AlCl₃ was prepared as above 21 g. II (R = Me, R₁ = H) (VIIa), m. 87-8° (EtOH, then hexane); semicarbazone m. 200°

(decomposition) (EtOH). VIIa heated with alkaline KMnO₄ solution gave p-C₆H₄(CO₂H)₂

(VIII); di-Me ester (IX) m. 140°. VIIa (25 g.) heated 24 hrs. with 100 g. amalgamated Zn and 100 ml. concentrated HCl gave 12 g. III (R = Me, R₁ = H) (VIIIa), b₁ 192-4°. VIIIa (8 g.) cyclized with PPA (from 60 g.

P₂O₅ and 40 ml. 89% H₃PO₄) as above gave IV (R = Me, R₁ = H) (VIIIb), b₁ 178°, m. 60-1°; 2,4-dinitrophenylhydrazones m. 216-17°

(EtOAc). VIIIb (6 g.) heated 24 hrs. with 30 g. amalgamated Zn and 30 ml. concentrated HCl gave 4 g. I (R = Me, R₁ = H) (VIIIc), b₁ 173-5°, d₃₂ 1.0, n_{32D} 1.543. VIIIc (1.77 g.) and 0.2 g. 10% Pd-C heated 16 hrs. at

380-400° in a sealed tube, the product chromatographed on Al₂O₃ with hexane as above, and the combined oils from the 1st and 2nd eluates distilled gave 1,2,4-C₆H₃Me₃, oxidized by alkaline KMnO₄ solution to 1,2,4-C₆H₃(CO₂H)₃, m. 216° (decomposition); the 3rd and 4th eluates concentrated, each residual solid (small amts.) treated with VI, and the combined complexes (m. 124-30°) crystallized repeatedly from EtOH gave

VI complex of 2-methylanthracene (X), m. 130°, from which was regenerated X, m. 201° (EtOH). VII (15 g.) in 20 ml. PhEt added to 25 g. anhydrous AlCl₃ suspended in 75 ml. ice cold dry (Cl₂CH)₂ and worked up as above gave 10 g. II (R = Et, R₁ = H), b_{0.8} 210-12°

[semicarbazone, m. 182-3° (decomposition) (EtOH)], oxidized with alkaline KMnO₄ solution to VIII, and heated (55 g.) 30 hrs. with 200 g. amalgamated Zn and 200 ml. concentrated HCl to 38 g. III (R = Et, R₁ = H) (Xa), b₁, 210°. Xa (8.1 g.) cyclized with PPA (from 35 g. P₂O₅ and 15 ml. 89% H₃PO₄ as above gave 4.19 g. IV (R = Et, R₁ = H), b₁ 185-7°

[semicarbazone, m. 222° (decomposition) (EtOH)], which (10 g.) heated 30 hrs. with 40 g. amalgamated Zn and 40 ml. concentrated HCl gave 7 g. I (R = Et, R₁ = H) (Xb), b₁ 165-7°, d₃₂ 0.9947, n_{32D} 1.541. Xb (2.45 g.) and 0.25 g. 10% Pd-C heated 16 hrs. at 380-400° in a sealed tube and the product chromatographed on Al₂O₃ with hexane as above gave (from the 1st and 2nd eluates) traces unchanged Xb; the 3rd and 4th eluates concentrated, each residual oil treated with VI, and the combined complexes (m. 110-18°) crystallized repeatedly from EtOH gave V complex of 2-ethylanthracene (XI), m. 119-20°, from which was regenerated XI, m. 150-1°. From 48 g. 4-methyl-1,1-cyclohexanediactic acid anhydride, 150 ml. dry C₆H₅, and 70 g. AlCl₃ was

prepared 12 g. II (R = H, R₁ = Me) (XIa), m. 113° (EtOH, then hexane); from the EtOH mother liquor was isolated 20 g. stereoisomer (XII) of II (R = H, R₁ = Me), viscous mass, b₁ 200-5°. XII (17 g.)

heated 36 hrs. with 75 g. amalgamated Zn and 75 ml. concentrated HCl gave 10 g. III (R = H, R₁ = Me), b₁ 183-5°, cyclized with PPA (from 30 g. P₂O₅

and 15 ml. 89% H₃PO₄) to 6.5 g. IV (R = H, R₁ = Me) (XIIa), b₁ 162-3°; 2,4-dinitrophenylhydrazones, m. 218-19° (EtOAc). XIIa

reduced with amalgamated Zn and concentrated HCl and the resulting product cyclized with PPA gave XIIa. XIIa (10 g.) gently boiled 24 hrs. with 40 g. amalgamated Zn and 40 ml. concentrated HCl gave 5.9 g. I (R = H, R₁ = Me),

b₁

150-1°, d₃₀ 1.0128, n_{30D} 1.5410, which (2.7 g.) and 0.29 g. 10% Pd-C heated 16 hrs. at 380-400° in a sealed tube and the product chromatographed on Al₂O₃ with hexane gave (from the 1st, 2nd, and 3rd eluates) o-xylene, b. .apprx.145°, oxidized by alkaline KMnO₄ solution to IVb; the 4th, 5th, and 6th eluates concentrated, each residual oil

(containing very little solid) treated with VI, and the combined complexes (m. 148-55°) crystallized repeatedly from EtOH gave VI complex of 3-methylphenanthrene (XIII), m. 155°, from which was regenerated XIII, m. 62-3° (EtOH) [picrate, m. 140-1° (EtOH)].

=> d his

(FILE 'HOME' ENTERED AT 11:15:07 ON 03 NOV 2008)

FILE 'CAPLUS' ENTERED AT 11:15:22 ON 03 NOV 2008

L1 1 S (CYCLOHEXANEDIACETIC (2W) ACID (2W) ANHYDRIDE) (L) (PREPARE O

=> s (CYCLOHEXANEDIACETIC (2W) ACID (2W) ANHYDRIDE) and toluene

261 CYCLOHEXANEDIACETIC

4701271 ACID

1658916 ACIDS

5220641 ACID

(ACID OR ACIDS)

236254 ANHYDRIDE

35093 ANHYDRIDES

247649 ANHYDRIDE

(ANHYDRIDE OR ANHYDRIDES)

7 CYCLOHEXANEDIACETIC (2W) ACID (2W) ANHYDRIDE

188058 TOLUENE

1551 TOLUENES

188625 TOLUENE

(TOLUENE OR TOLUENES)

L2 0 (CYCLOHEXANEDIACETIC (2W) ACID (2W) ANHYDRIDE) AND TOLUENE

=> s (CYCLOHEXANEDIACETIC (2W) ACID) and toluene and anhydride

261 CYCLOHEXANEDIACETIC

4701271 ACID

1658916 ACIDS

5220641 ACID

(ACID OR ACIDS)

249 CYCLOHEXANEDIACETIC (2W) ACID

188058 TOLUENE

1551 TOLUENES

188625 TOLUENE

(TOLUENE OR TOLUENES)

236254 ANHYDRIDE

35093 ANHYDRIDES

247649 ANHYDRIDE

(ANHYDRIDE OR ANHYDRIDES)

L3 5 (CYCLOHEXANEDIACETIC (2W) ACID) AND TOLUENE AND ANHYDRIDE

=> d l3 1-5 ibib abs

L3 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:87446 CAPLUS

DOCUMENT NUMBER: 144:170693

TITLE: Process for the preparation of substituted glutaric anhydrides and their application

INVENTOR(S): Su, Zengquan; Min, Jianzhong; Weng, Xiaoming; Yu, Yan; Wang, Hao; Bi, Daofu

PATENT ASSIGNEE(S): Changzhou Tianzhi Chemical Co., Ltd., Peop. Rep. China

Serial No.: 10/578783

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 9 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1603295	A	20050406	CN 2004-10041589	20040730
CN 1274657	C	20060913		
PRIORITY APPLN. INFO.:			CN 2004-10041589	20040730

OTHER SOURCE(S): CASREACT 144:170693

AB The method comprises melting and stirring 1,1-cyclohexyl diacetic acid or 3-isobutylpentyl dicarboxylic acid, dehydrating at 250-280 °C and cooling to give product; or dehydrating 1,1-cyclohexyldiacetic acid or 3-isobutylpentyl dicarboxylic acid in the presence of sulfonic acids (H₂SO₄, TsOH or PhSO₃H) catalyst at 150-200 °C, cooling to give product; or boiling 1,1-cyclohexyldiacetic acid or 3-isobutylpentyl dicarboxylic acid with azeotropy solvent and separating water via water separator, distilling organic solvent, cooling to give product. The prepared anhydrides are applied in reaction with NH₃ to produce 1,1-cyclohexyldiacetic amide (92%) and 3-isobutylpentyl dicarboxylic amide (82%).

L3 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:426561 CAPLUS

DOCUMENT NUMBER: 142:463372

TITLE: Process for the preparation of gabapentin via the Hoffmann rearrangement of 1,1-cyclohexanediadicetic acid monoamide

INVENTOR(S): Arrighi, Katiuscia; Cannata, Vincenzo; Corcella, Francesco; Marchioro, Gaetano; Nicoli, Andrea; Paiocchi, Maurizio; Villa, Marco

PATENT ASSIGNEE(S): Zambon Group S.p.A., Italy

SOURCE: PCT Int. Appl., 11 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005044779	A2	20050519	WO 2004-EP52894	20041109
WO 2005044779	A3	20050714		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

Serial No.: 10/578783

CA 2543275 A1 20050519 CA 2004-2543275 20041109
EP 1682488 A2 20060726 EP 2004-804523 20041109
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, TR, BG, CZ, EE, HU, PL, SK, HR,
IS, YU
JP 2007510695 T 20070426 JP 2006-538854 20041109
IN 2006CN01621 A 20070608 IN 2006-CN1621 20060510
US 20070066843 A1 20070322 US 2006-578783 20061206
PRIORITY APPLN. INFO.: IT 2003-MI2165 A 20031111
WO 2004-EP52894 W 20041109

OTHER SOURCE(S): CASREACT 142:463372

AB Gabapentin and its salts (e.g., gabapentin hydrochloride) are prepared by the Hoffmann rearrangement of 1,1-cyclohexanediactic acid monoamide, prepared by the monoamidation of 1,1-cyclohexanediactic anhydride with aqueous ammonia, optionally followed by salification in the case of required salt formation.

L3 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:930766 CAPLUS

DOCUMENT NUMBER: 136:19880

TITLE: Preparation of 1-(2-amino-2-oxoethyl)cyclohexaneacetic acid

INVENTOR(S): Tang, Miaorong; Fan, Weirong; Liu, Tianchun; Zhang, Xiaobo

PATENT ASSIGNEE(S): Hangzhou Shouxin Fine Chemical Co., Ltd., Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 5 pp. CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1297885	A	20010606	CN 2000-128111	20001201
CN 1109017	C	20030521		

PRIORITY APPLN. INFO.: CN 2000-128111 20001201

OTHER SOURCE(S): CASREACT 136:19880

AB 1-(2-Amino-2-oxoethyl)cyclohexaneacetic acid is synthesized by condensing cyclohexanone with Et cyanoacetate in ethanol under bubbling NH₃ for 18-26 h, stirring at 0° for 18-26 h and at 25° for 100-130 h to obtain α,α -dicyano-1,1-cyclohexanediacetamide ammonium salt, hydrolyzing with H₂SO₄ solution at 200° for 30 min to obtain 1,1-cyclohexanediactic acid, dehydrating with acetic anhydride to obtain 1,1-cyclohexanediactic anhydride, aminolyzing with NH₃ or NH₄OH at 30-110° for 3-8 h, and recrystg. with ethanol.

L3 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:205318 CAPLUS

DOCUMENT NUMBER: 130:267212

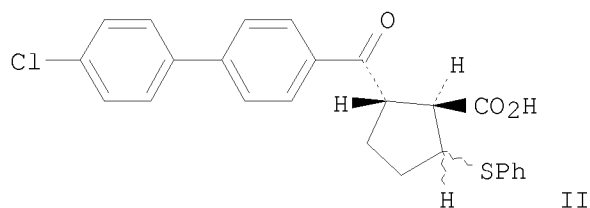
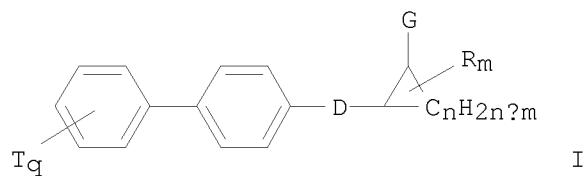
TITLE: Biphenyl-derived substituted cycloalkanecarboxylic acid derivatives and analogs as matrix metalloprotease inhibitors

INVENTOR(S): Kluender, Harold Clinton Eugene; Bullock, William Harrison; Dixon, Brian Richard; Schneider, Stephan;

Serial No.: 10/578783

PATENT ASSIGNEE(S): Vanzandt, Michael Christopher; Wilhelm, Scott
SOURCE: McClelland; Wolanin, Donald John
Bayer Corporation, USA
U.S., 102 pp., Cont. of U.S. Ser. No. 463,471,
abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
US 5886022	A	19990323	US 1997-866568	19970530
PRIORITY APPLN. INFO.:			US 1995-463471	B1 19950605
OTHER SOURCE(S):	MARPAT	130:267212		
GI				



AB The invention discloses inhibitors for matrix metalloproteases (MMPs), pharmaceutical compns. containing the inhibitors, and a process for using them to treat a variety of physiol. conditions. The claimed compds. have the generalized formula I [wherein each T = halo, alk(en/yn)yl, (CH₂)_pQ, etc.; Q = aryl, heteroaryl, cyano, CHO, NO₂, etc.; p = 0-4; q = 0-2; D = CO, CH(OH), C:NOH, C:S; n = 2 or 3; R = alk(en/yn)yl, aralk(en/yn)yl; G = CO₂H, alkoxycarbonyl, (di)(alkyl)carbamoyl, or amino acid residues bound at N via a CO linker; m = 0-2]. Approx. 250 compds. including both I and many acyclic carboxylic acid analogs were prepared For instance, Friedel-Crafts acylation of 4-chlorobiphenyl by 1-cyclopentene-1,2-dicarboxylic anhydride, followed by lithiation/reprotonation to effect double-bond isomerization, and Michael addition of thiophenol to the double bond, gave 2 diastereomers of title compound II. The trans,trans isomer of II was the most active diastereomer, with IC₅₀ values as follows: MMP-3 14-47 nM, MMP-9 56 nM, and MMP-2 4 nM.

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1957:25387 CAPLUS
 DOCUMENT NUMBER: 51:25387
 ORIGINAL REFERENCE NO.: 51:5003f-i,5004a-b
 TITLE: Constitution of acorone
 AUTHOR(S): Sykora, V.; Herout, V.; Pliva, J.; Sorm, F.
 CORPORATE SOURCE: Czech. Acad. Sci., Prague
 SOURCE: Chemistry & Industry (London, United Kingdom) (1956)
 1231-2
 CODEN: CHINAG; ISSN: 0009-3068
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable
 GI For diagram(s), see printed CA Issue.
 AB cf. C.A. 44, 9384a. Acorone has been shown to have structure I. Dehydrogenation of acorenone (II) with S gave a product containing one aromatic ring and a carbonyl group in a 6-membered ring as shown by an absorption band at 1714 cm.⁻¹ This indicated that the C atom common to the 5- and 6-membered rings is quaternary since aromatization did not take place without rearrangement. Acoranone (III) was converted to a hydroxymethylene derivative (IV) which on oxidation yielded V. Catalytic dehydrogenation of V gave a mixture of p-MeC₆H₄Et (VI) and p-MeC₆H₄CH₂CHMe₂ (VII) together with EtCO₂H and Me₂CHCH₂CO₂H. I and BzH gave a benzylidene derivative (VIII) which on ozonolysis gave IX, m. 127.5°. Pyrolysis of the Ba salt of IX gave a mixture of 2 α,β -unsatd. ketones which were converted in 4 steps to VI and VII. Dehydrogenation of isoacordiene (X) produced 1,7-dimethyl-4-isopropyl-naphthalene. Acorone is the first naturally-occurring compound shown to have a spirane skeleton.

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FILE 'CAPLUS' ENTERED AT 11:15:22 ON 03 NOV 2008

L1 1 S (CYCLOHEXANEDIACETIC (2W) ACID (2W) ANHYDRIDE) (L) (PREPARE O
 L2 0 S (CYCLOHEXANEDIACETIC (2W) ACID (2W) ANHYDRIDE) AND TOLUENE
 L3 5 S (CYCLOHEXANEDIACETIC (2W) ACID) AND TOLUENE AND ANHYDRIDE

=> s (CYCLOHEXANEDIACETIC (2W) ACID) (L) (acetic (2W) ANHYDRIDE) (L) solvent
 261 CYCLOHEXANEDIACETIC
 4701271 ACID
 1658916 ACIDS
 5220641 ACID

(ACID OR ACIDS)

274599 ACETIC

22 ACETICS

274608 ACETIC

(ACETIC OR ACETICS)

236254 ANHYDRIDE

35093 ANHYDRIDES

247649 ANHYDRIDE

(ANHYDRIDE OR ANHYDRIDES)

758797 SOLVENT

363397 SOLVENTS

946663 SOLVENT

(SOLVENT OR SOLVENTS)

L4 0 (CYCLOHEXANEDIACETIC (2W) ACID) (L) (ACETIC (2W) ANHYDRIDE) (L)
 SOLVENT

=> s (CYCLOHEXANEDIACETIC (2W) ACID) (1) (acetic (2W) ANHYDRIDE)

261 CYCLOHEXANEDIACETIC

4701271 ACID

1658916 ACIDS

5220641 ACID

(ACID OR ACIDS)

274599 ACETIC

22 ACETICS

274608 ACETIC

(ACETIC OR ACETICS)

236254 ANHYDRIDE

35093 ANHYDRIDES

247649 ANHYDRIDE

(ANHYDRIDE OR ANHYDRIDES)

L5 2 (CYCLOHEXANEDIACETIC (2W) ACID) (L) (ACETIC (2W) ANHYDRIDE)

=> d 15 1-2 ibib abs

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:22835 CAPLUS

DOCUMENT NUMBER: 138:73019

TITLE: Amidation process for the preparation of
1,1-cyclohexanediacetic acid monoamide from
1,1-cyclohexanediacetic anhydride and aqueous ammonia

INVENTOR(S): Oren, Jacob

PATENT ASSIGNEE(S): Bromine Compounds Ltd., Israel

SOURCE: PCT Int. Appl., 15 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003002517	A1	20030109	WO 2002-IL473	20020617
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2002311607	A1	20030303	AU 2002-311607	20020617
PRIORITY APPLN. INFO.:			IL 2001-144066	A 20010628
			WO 2002-IL473	W 20020617

OTHER SOURCE(S): CASREACT 138:73019

AB 1,1-Cyclohexanediacetic acid monoamide (CHDAAM), a gabapentin intermediate (no data), is prepared in high yield and selectivity by amination of 1,1-cyclohexanediacetic anhydride (CDAAn) with aqueous ammonia, followed by neutralization of the reaction mixture with an acid (e.g., H₂SO₄) such that crude CHDAAM is precipitated, filtered, and purified by crystallization from a solvent.

The amination is carried out at <20° with aqueous ammonia having a

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concentration of 25-35% and in a molar ratio, relative to the CHDAAn, of 5-10, resp. The neutralization is carried out with an aqueous solution of H₂SO₄ having

a concentration of 30-70% and is continued until a slightly acid solution is obtained.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:930766 CAPLUS

DOCUMENT NUMBER: 136:19880

TITLE: Preparation of 1-(2-amino-2-oxoethyl)cyclohexaneacetic acid

INVENTOR(S): Tang, Miaorong; Fan, Weirong; Liu, Tianchun; Zhang, Xiaobo

PATENT ASSIGNEE(S): Hangzhou Shouxin Fine Chemical Co., Ltd., Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 5 pp. CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1297885	A	20010606	CN 2000-128111	20001201
CN 1109017	C	20030521		
PRIORITY APPLN. INFO.:			CN 2000-128111	20001201
OTHER SOURCE(S):		CASREACT 136:19880		

AB 1-(2-Amino-2-oxoethyl)cyclohexaneacetic acid is synthesized by condensing cyclohexanone with Et cyanoacetate in ethanol under bubbling NH₃ for 18-26 h, stirring at 0° for 18-26 h and at 25° for 100-130 h to obtain α,α -dicyano-1,1-cyclohexanediacetamide ammonium salt, hydrolyzing with H₂SO₄ solution at 200° for 30 min to obtain 1,1-cyclohexanediacetic acid, dehydrating with acetic anhydride to obtain 1,1-cyclohexanediacetic anhydride, aminolyzing with NH₃ or NH₄OH at 30-110° for 3-8 h, and recrystg. with ethanol.

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(FILE 'HOME' ENTERED AT 11:15:07 ON 03 NOV 2008)

FILE 'CAPLUS' ENTERED AT 11:15:22 ON 03 NOV 2008

L1 1 S (CYCLOHEXANEDIACETIC (2W) ACID (2W) ANHYDRIDE) (L) (PREPARE O
L2 0 S (CYCLOHEXANEDIACETIC (2W) ACID (2W) ANHYDRIDE) AND TOLUENE
L3 5 S (CYCLOHEXANEDIACETIC (2W) ACID) AND TOLUENE AND ANHYDRIDE
L4 0 S (CYCLOHEXANEDIACETIC (2W) ACID) (L) (ACETIC (2W) ANHYDRIDE) (
L5 2 S (CYCLOHEXANEDIACETIC (2W) ACID) (L) (ACETIC (2W) ANHYDRIDE)

=> s (CYCLOHEXANEDIACETIC (2W) ACID) and (ACETIC (2W) ANHYDRIDE)

261 CYCLOHEXANEDIACETIC
4701271 ACID
1658916 ACIDS
5220641 ACID

(ACID OR ACIDS)
249 CYCLOHEXANEDIACETIC (2W) ACID

274599 ACETIC

22 ACETICS

274608 ACETIC

(ACETIC OR ACETICS)

236254 ANHYDRIDE

35093 ANHYDRIDES

247649 ANHYDRIDE

(ANHYDRIDE OR ANHYDRIDES)

30749 ACETIC (2W) ANHYDRIDE

L6 3 (CYCLOHEXANEDIACETIC (2W) ACID) AND (ACETIC (2W) ANHYDRIDE)

=> s l6 not l5

L7 1 L6 NOT L5

=> d l7 ibib abs

L7 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:269925 CAPLUS

DOCUMENT NUMBER: 140:271196

TITLE: Process for synthesis of
1-(aminomethyl)cyclohexaneacetic acid hydrochloride

INVENTOR(S): Ferrari, Massimo; Ghezzi, Marcello; Belotti, Paolo

PATENT ASSIGNEE(S): Erregierre S.P.A., Italy

SOURCE: U.S. Pat. Appl. Publ., 3 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20040063997	A1	20040401	US 2003-420154	20030422
US 6846950	B2	20050125		
CA 2500400	A1	20040415	CA 2003-2500400	20031001
WO 2004031126	A2	20040415	WO 2003-EP10866	20031001
WO 2004031126	A3	20040527		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003273930	A1	20040423	AU 2003-273930	20031001
EP 1558564	A2	20050803	EP 2003-757897	20031001
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
RU 2326109	C2	20080610	RU 2005-111869	20031001
PRIORITY APPLN. INFO.: IT 2002-MI2071 A 20021001				
WO 2003-EP10866 W 20031001				
OTHER SOURCE(S): CASREACT 140:271196				

Serial No.: 10/578783

AB A process for the synthesis of 1-(aminomethyl)cyclohexaneacetic acid hydrochloride (gabapentin hydrochloride) comprises reaction of 1,1-cyclohexanediactic acid with Ac2O/NH4OAc and treatment with aqueous NaOH and aqueous NaOCl/NaOH and acidification with HCl. The process afforded gabapentin hydrochloride in 88% yield and HPLC purity >99.5%.
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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(FILE 'HOME' ENTERED AT 11:15:07 ON 03 NOV 2008)

FILE 'CAPLUS' ENTERED AT 11:15:22 ON 03 NOV 2008

L1	1 S (CYCLOHEXANEDIACETIC (2W) ACID (2W) ANHYDRIDE) (L) (PREPARE O
L2	0 S (CYCLOHEXANEDIACETIC (2W) ACID (2W) ANHYDRIDE) AND TOLUENE
L3	5 S (CYCLOHEXANEDIACETIC (2W) ACID) AND TOLUENE AND ANHYDRIDE
L4	0 S (CYCLOHEXANEDIACETIC (2W) ACID) (L) (ACETIC (2W) ANHYDRIDE) (
L5	2 S (CYCLOHEXANEDIACETIC (2W) ACID) (L) (ACETIC (2W) ANHYDRIDE)
L6	3 S (CYCLOHEXANEDIACETIC (2W) ACID) AND (ACETIC (2W) ANHYDRIDE)
L7	1 S L6 NOT L5

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ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF

LOGOFF? (Y)/N/HOLD:y

STN INTERNATIONAL LOGOFF AT 11:27:24 ON 03 NOV 2008